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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/911,126	07/23/2001	Owen Jones	272PQ-C1	2925
7590 06/15/2005				
Larson & Associates, P.C. 221 East Church Street Frederick, MD 21701-5405			EXAMINER MICHALSKI, JUSTIN I	
			ART UNIT 2644	PAPER NUMBER

DATE MAILED: 06/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/911,126	Applicant(s) JONES, OWEN	
	Examiner Justin Michalski	Art Unit 2644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2004.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-14, 16-20, 26-29, 31-38, 40-46, 48-51, 55-63 and 67-92 is/are pending in the application.
- 4a) Of the above claim(s) 43-46, 48-51, 55-63 and 67-92 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 19, 20, 40 and 41 is/are allowed.
- 6) ☒ Claim(s) 1-12 and 35-38 is/are rejected.
- 7) ☒ Claim(s) 13, 14, 16-18, 26-29, 31-34 and 42 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)          |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. <u>20050607</u> .                                    |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>9/10/01</u> .   | 6) <input type="checkbox"/> Other: _____.                                   |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election of Claims 1-42 in the reply filed on 14 December 2004 is acknowledged.

### ***Claim Objections***

2. Claim 31 is objected to because of the following informalities: Claim 31 depends on canceled claim 30. Claim 31 has been examined as dependent on claim 1 (see interview summary of 8 June 2005). Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claim 38 is rejected under 35 U.S.C. 102(e) as being anticipated by Douglas. Douglas discloses an active headset for an active noise reduction system (Fig. 2), comprising a first earpiece and a second earpiece (3 and 4), with the first earpiece having a first earphone and a first microphone and the second earpiece having a second earphone and a second microphone (paragraph 37); and first and second gain

control elements in parallel with said first and second microphones (acoustic barrier paragraph 37), wherein a first stereo jack plug socket provides for three input electrical connections of the plurality of electrical connections to the first microphone in the first earpiece (Fig. 4, 14') and the second microphone in the second earpiece and a second stereo jack plug socket provides three input electrical connections to the first earphone in the first earpiece and the second earphone in the second earpiece (15').

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Douglas (US Patent Application 2001/0050993) in view of Mutata (US Patent 4,922,547).

Regarding Claim 1, Douglas discloses a noise cancellation system (Fig. 4) having compatibility with existing socket configurations (Fig 3, sockets 12 and 13), comprising: an active headset (20'), having at least a first earphone (Fig. 1, earphone 4), a first microphone (paragraph 35), and a first gain control element that provides gain control of the first microphone (paragraph 37); a noise cancellation circuit that is located remotely from the active headset (Fig. 3, unit 30; and a plurality of electrical connections for connecting the noise cancellation circuitry to the active headset (Fig. 4, connections

on plug 22'). Douglas does not disclose a current source element coupled to the first microphone to provide a correct bias voltage to said first microphone. Murata discloses a microphone for a head worn device comprising a current source to supply a bias voltage to a microphone (Col. 4, lines 36-51). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to include a current source to supply a bias voltage to a microphone in order to power the microphone.

Regarding Claim 2, Douglas further discloses the active headset is a stereo headset further comprising a second earphone (3), a second microphone (paragraph 35), and a second gain control element that provides gain control of the second microphone (paragraph 37), and wherein the maximum number of electrical connection is seven (It would have been obvious as a matter of design choice to choose an appropriate maximum number of electrical connections to supply electrical signals to and from a headset).

7. Claim 3-12 are is rejected under 35 U.S.C. 103(a) as being unpatentable over Douglas/Mutata as applied to claim 1 above, and further in view of Mosely (US Patent 5,117,461).

Regarding Claim 3, Douglas/Mutata discloses a system as stated apropos of claim 1 above but do not disclose the active headset is a mono headset. Mosely discloses a noise canceling headset that can be used in mono or binaural sources (Col. 2, lines 48-50). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have an active headset that can be used in mono.

It would have been obvious as a matter of design choice to choose an appropriate maximum number of electrical connections to supply electrical signals to and from a headset).

Regarding Claim 4, Douglas/Mutata discloses a system as stated apropos of claim 1 above but do not disclose the active headset is a mono headset or comprising a boom microphone. Mosely discloses a noise canceling headset that can be used in mono or binaural sources (Col. 2, lines 48-50) and comprising a boom microphone for communication (Col. 2, lines 40-43). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have an active headset that can be used in mono and a boom microphone for communication as taught by Mosely. It would have been obvious as a matter of design choice to choose an appropriate maximum number of electrical connections to supply electrical signals to and from a headset).

Regarding Claim 5, Douglas further discloses two stereo jack plugs (14' and 15').

Regarding Claim 6, Douglas further discloses two mono jack plugs (16' and 17').

Regarding Claim 7, Douglas further discloses a stereo jack plug (22').

Regarding Claim 8, Douglas further discloses a stereo jack plug (16') and a mono jack plug (16').

Regarding Claims 9-12, Mosely further discloses pin connectors (Fig. 3c, connector 26, 86, and 88). It would have been obvious to provide an appropriate number of pins as a matter of design choice.

8. Claims 35-37 rejected under 35 U.S.C. 103(a) as being unpatentable over Douglas/Mutata as applied to claim 1 above, and further in view of Maruyama (US Patent 6,377,188).

Regarding Claims 35 and 36, Douglas/Mutata disclose a device as stated apropos of claim 1 above but do not disclose the system in a passenger cabin of a vehicle. Maruyama discloses a headset device integrated in an armrest of an aircraft seat (Col. 2, lines 34-45). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to integrate a headset in a vehicle to allow a passenger to select and listen to audio.

Regarding Claim 37, Douglas further discloses a first and second stereo jack plug (Fig. 4, 14' and 15').

### ***Allowable Subject Matter***

9. Claims 19, 20, 40, and 41 are allowed.

10. Claims 13, 14, 16-18, 26-29, 31-34 and 42 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.


### ***Conclusion***

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin Michalski whose telephone number is (571)272-7524. The examiner can normally be reached on M-F 7-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on (571)272-7564. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JIM



**SINH TRAN**  
**SUPERVISORY PATENT EXAMINER**